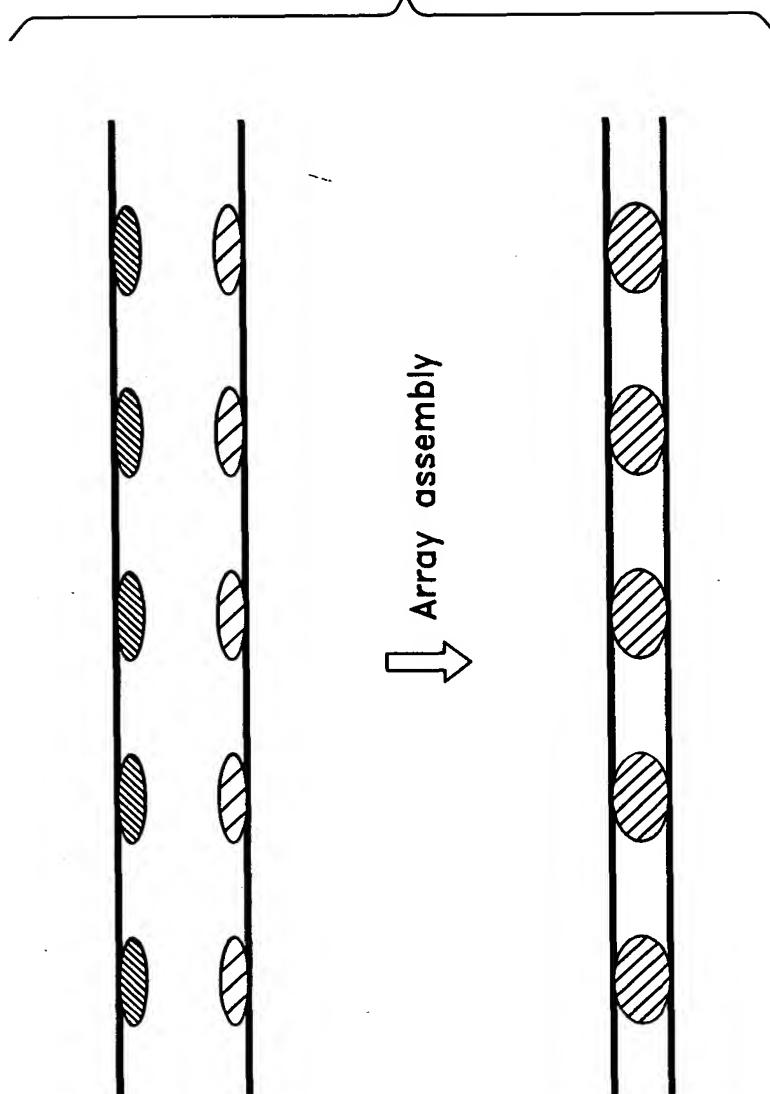


Fig. 1



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Fig. 2

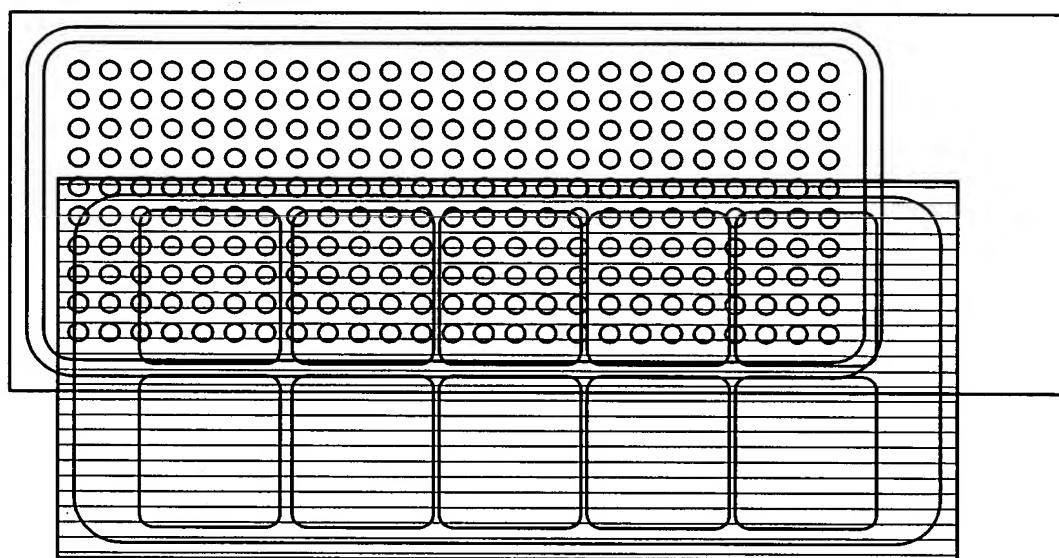
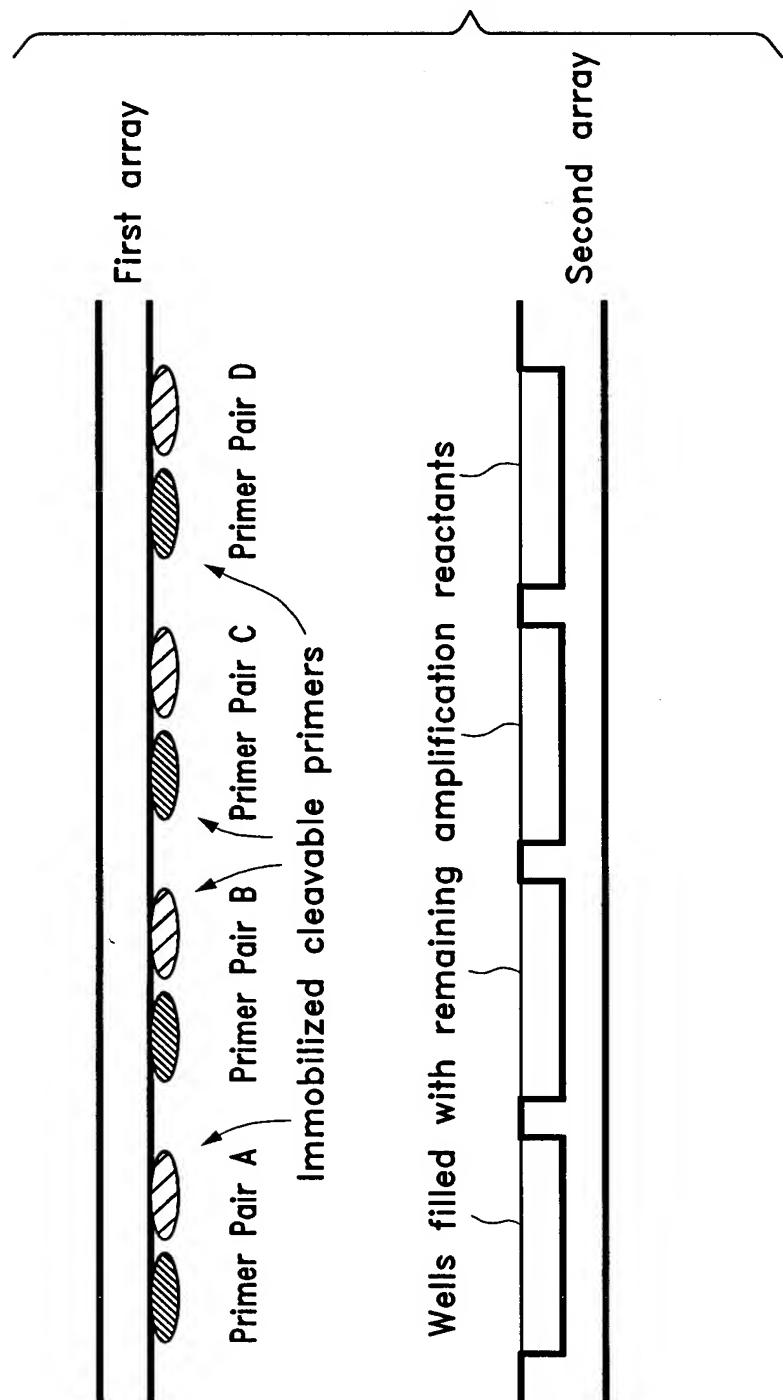
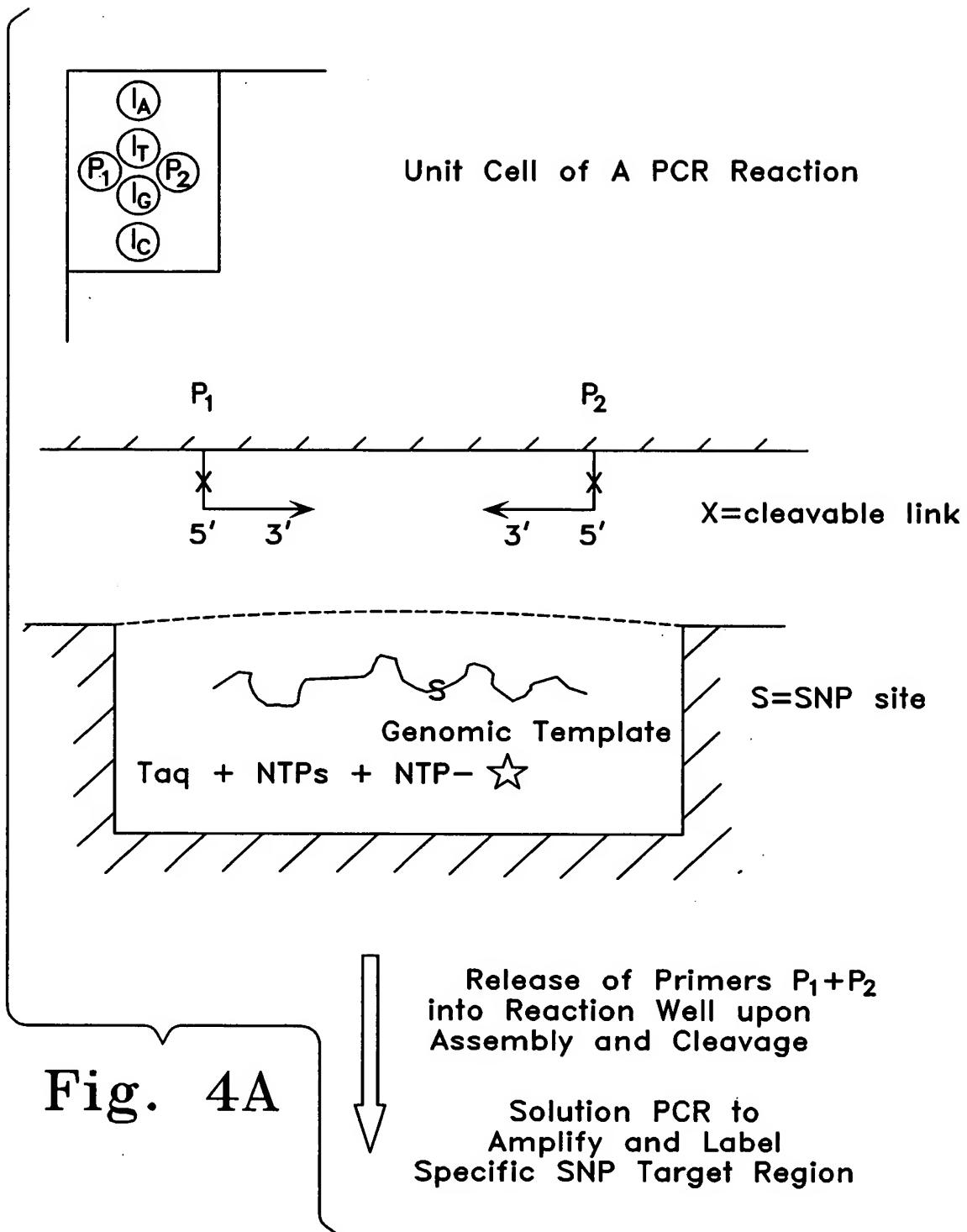
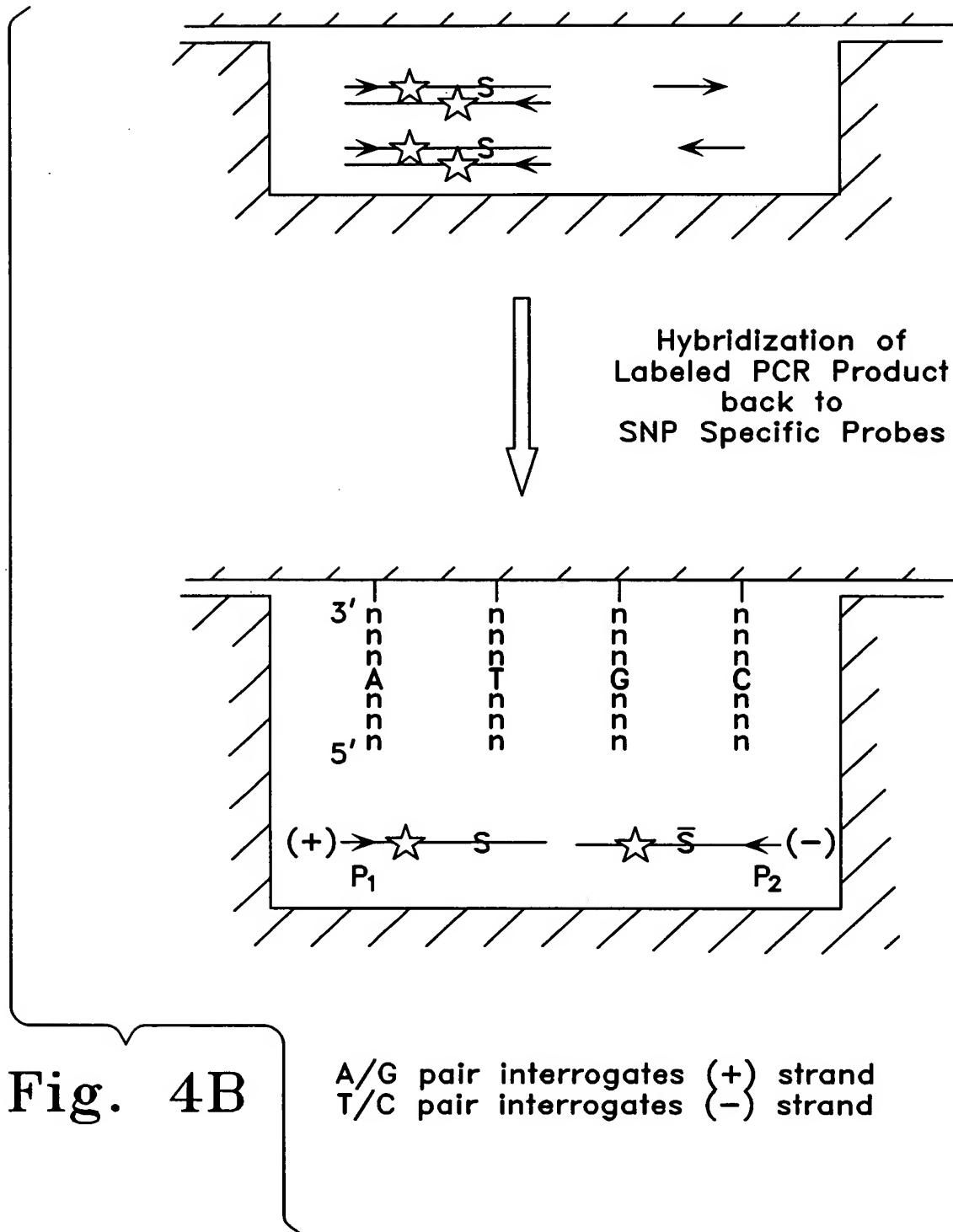


Fig. 3





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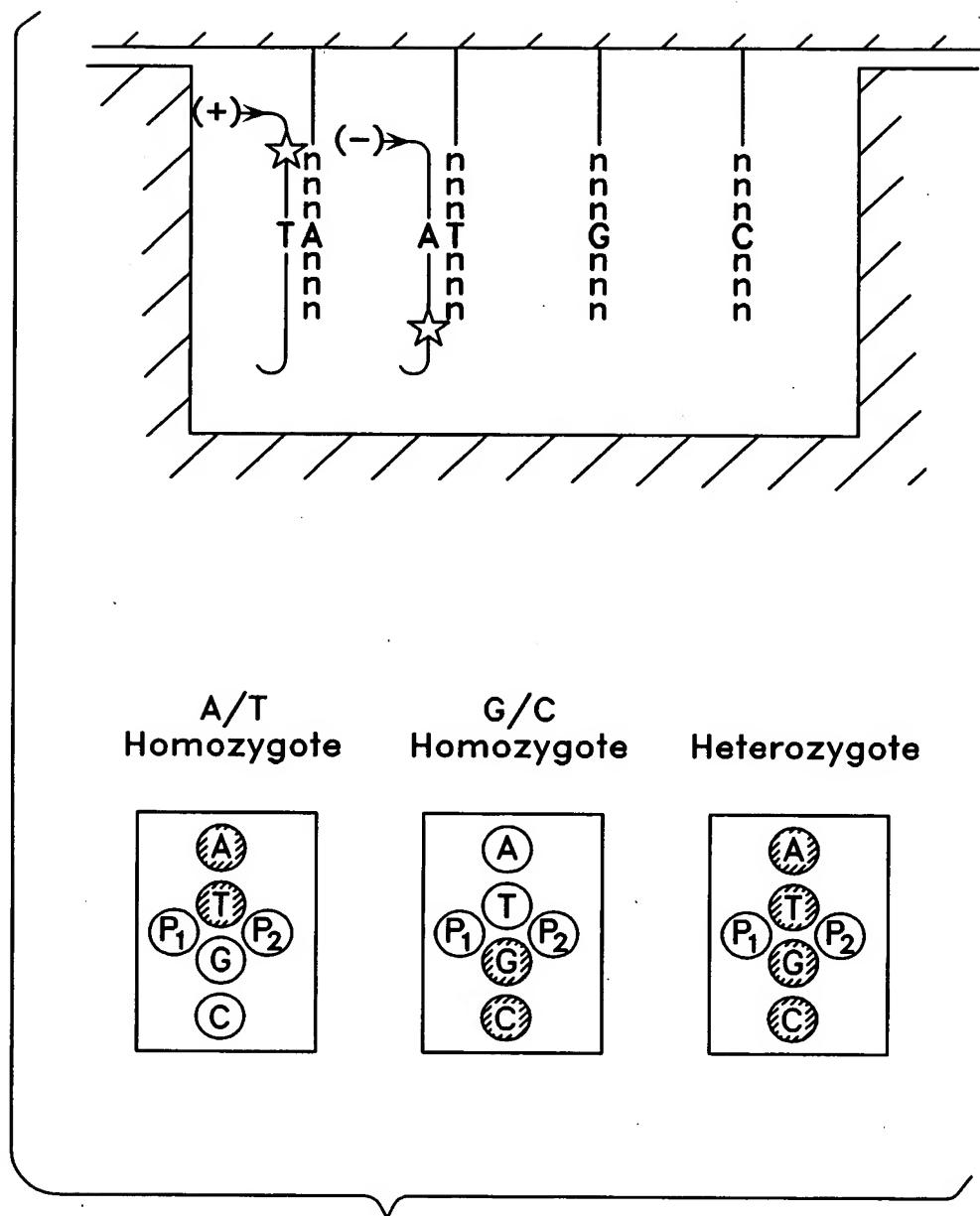
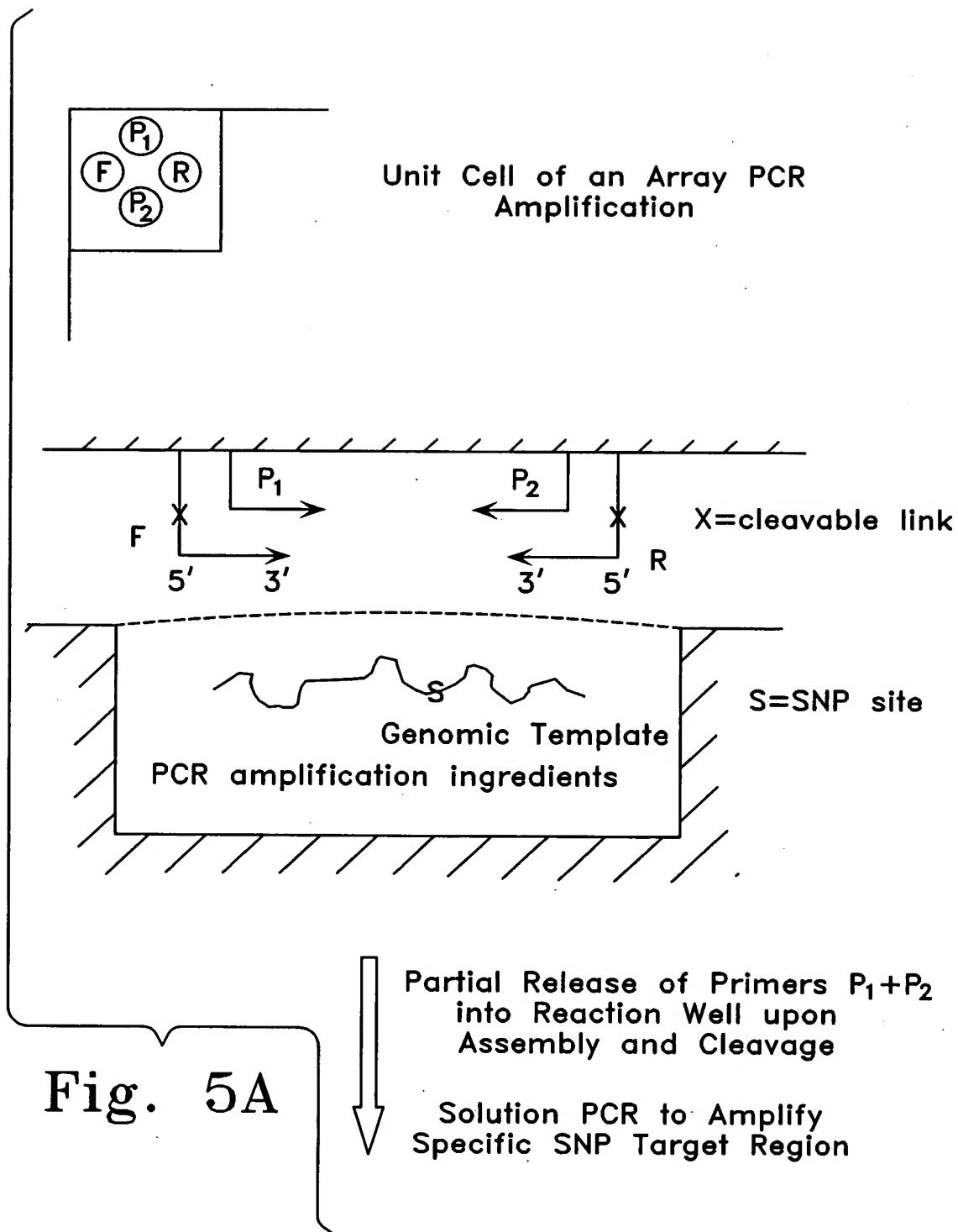
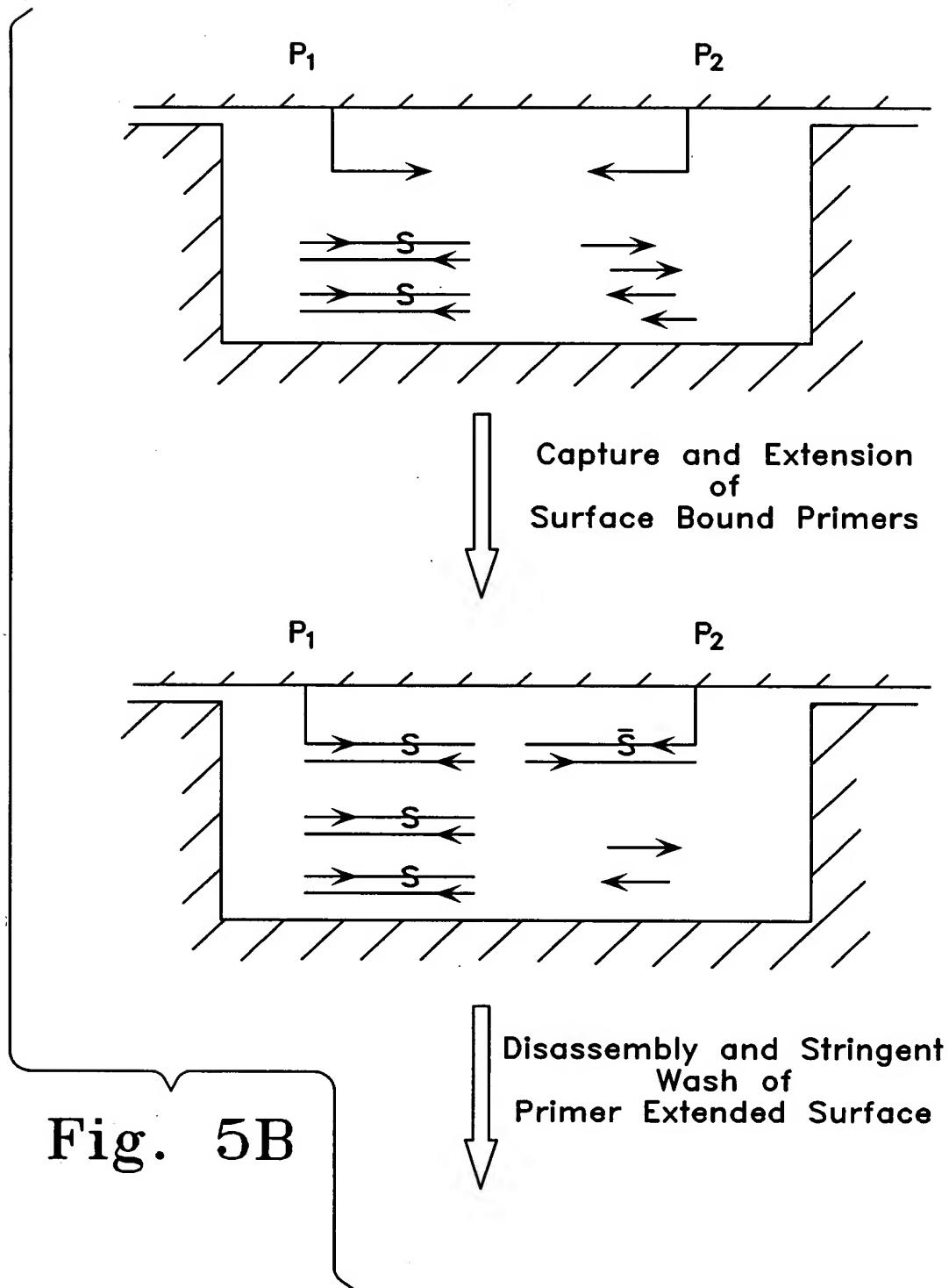


Fig. 4C





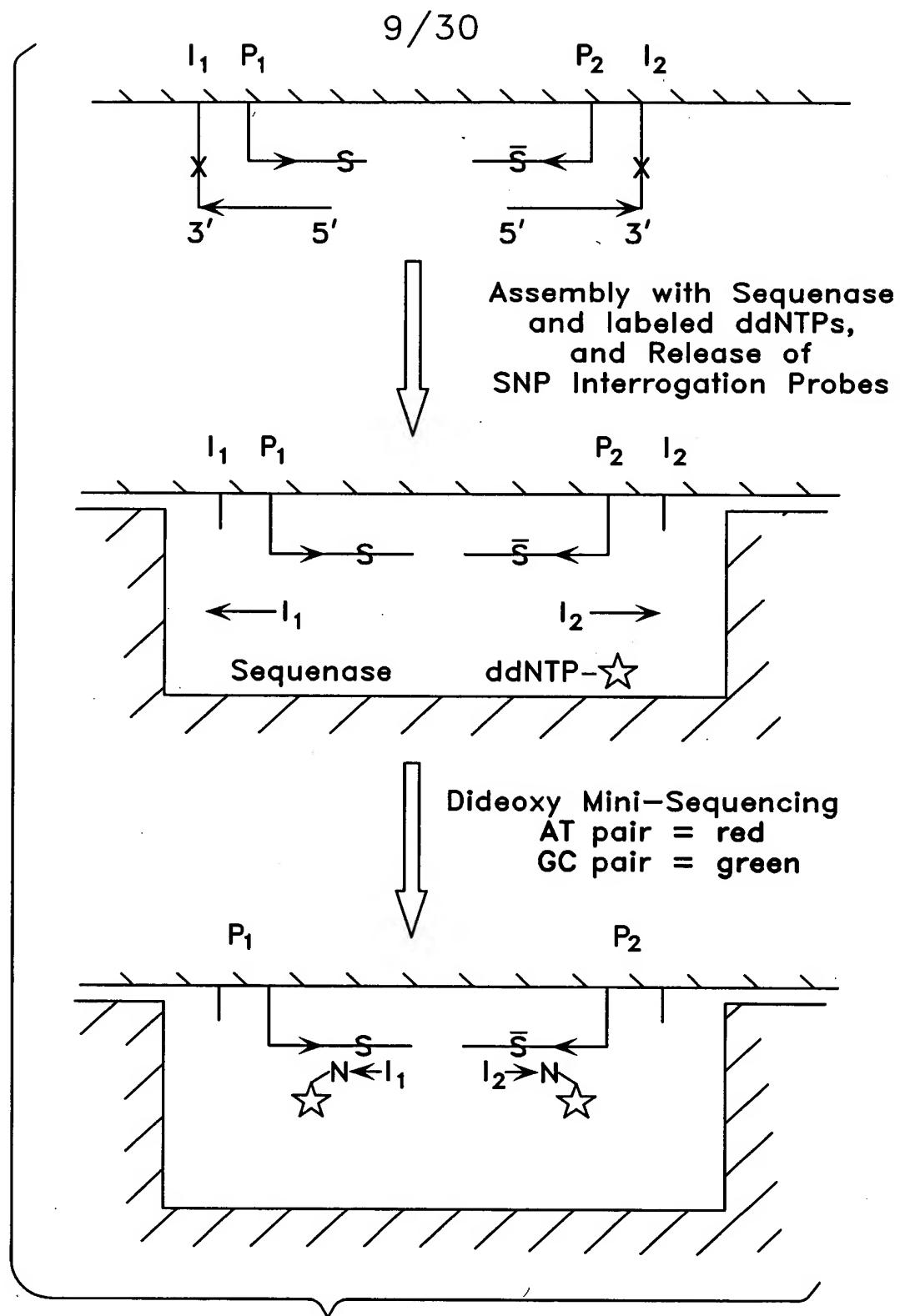
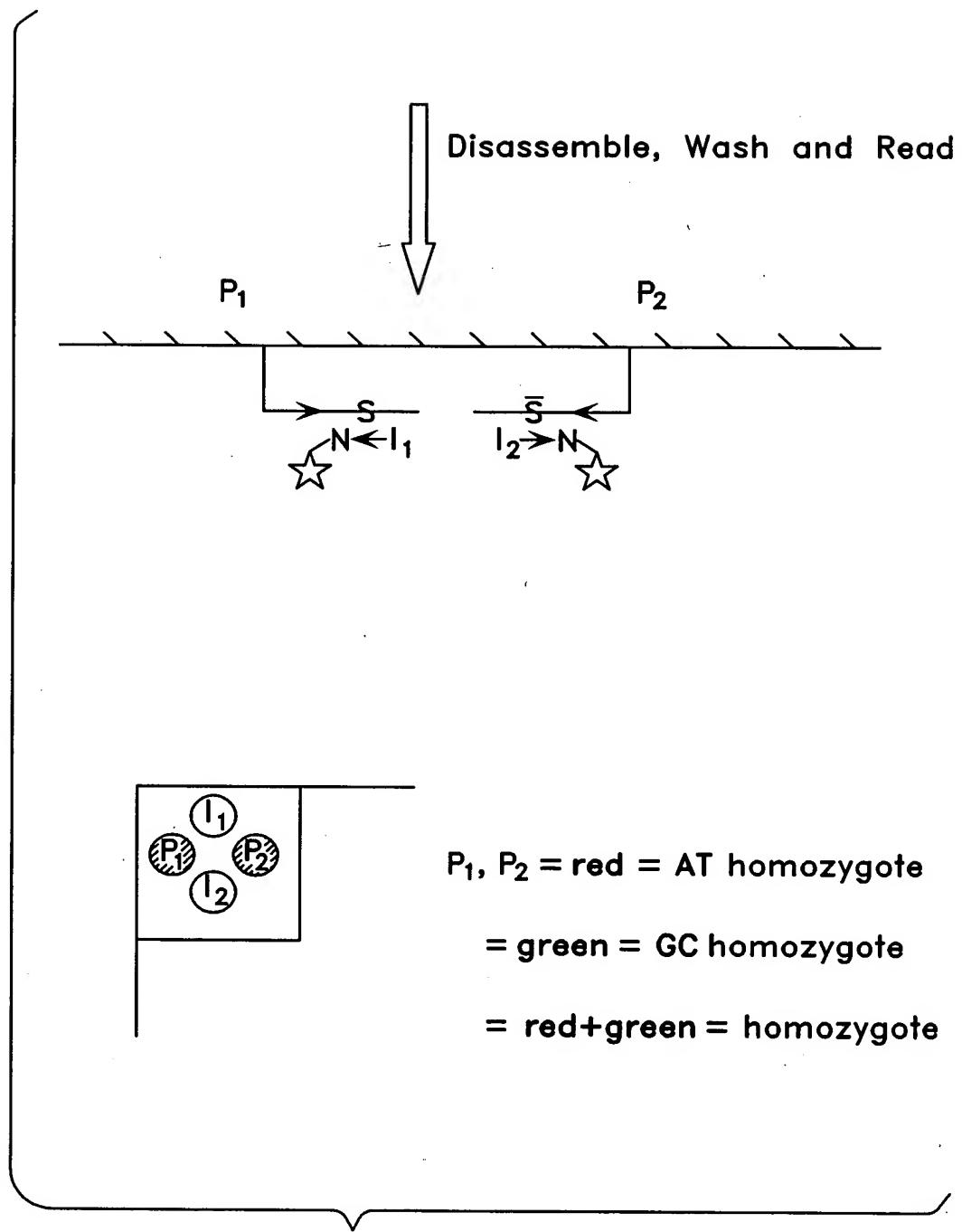
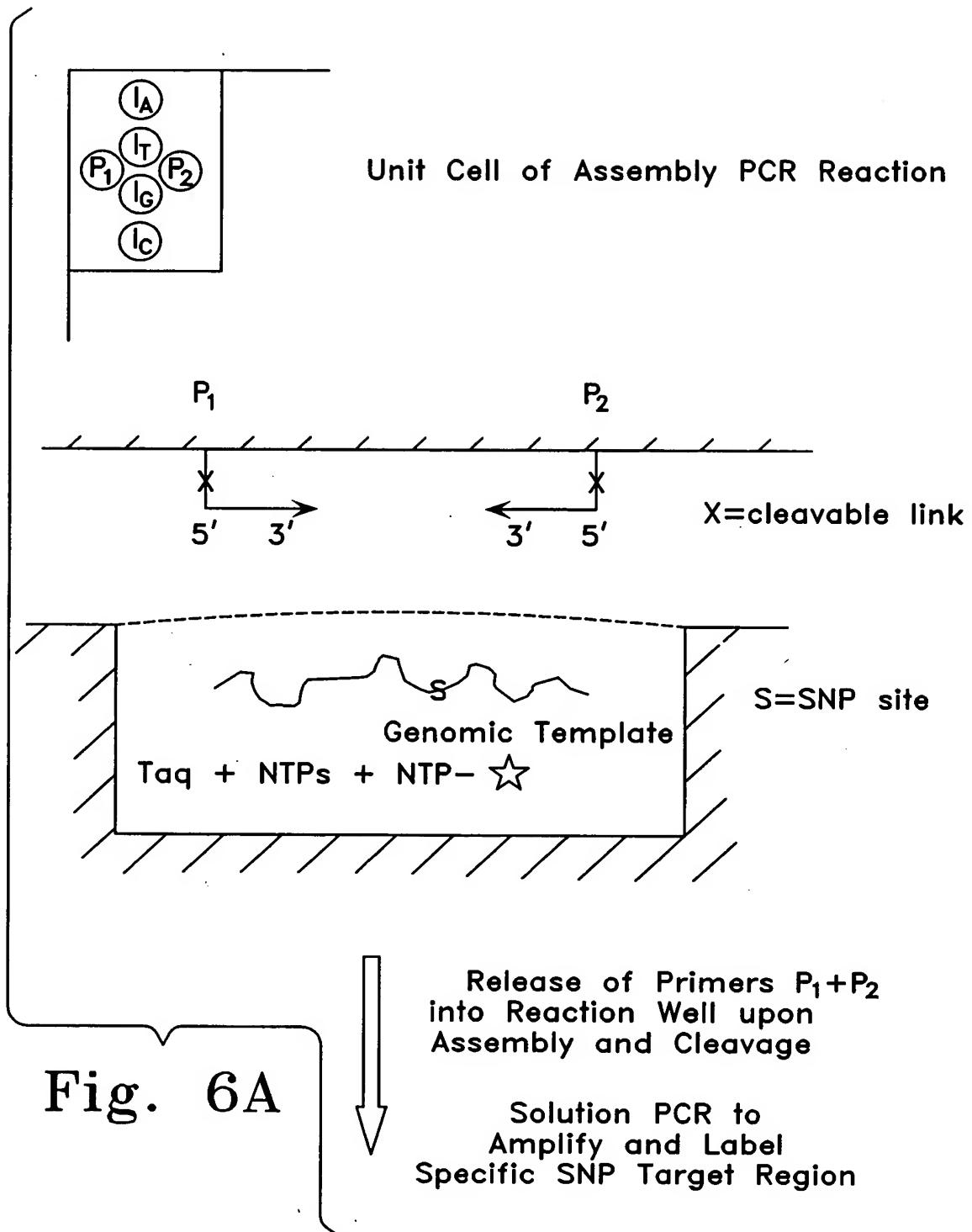


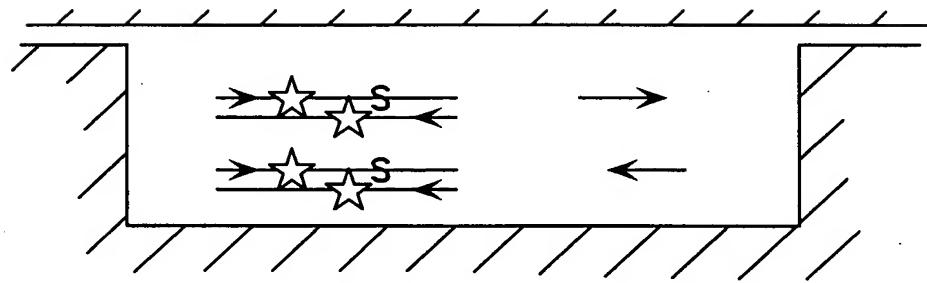
Fig. 5C

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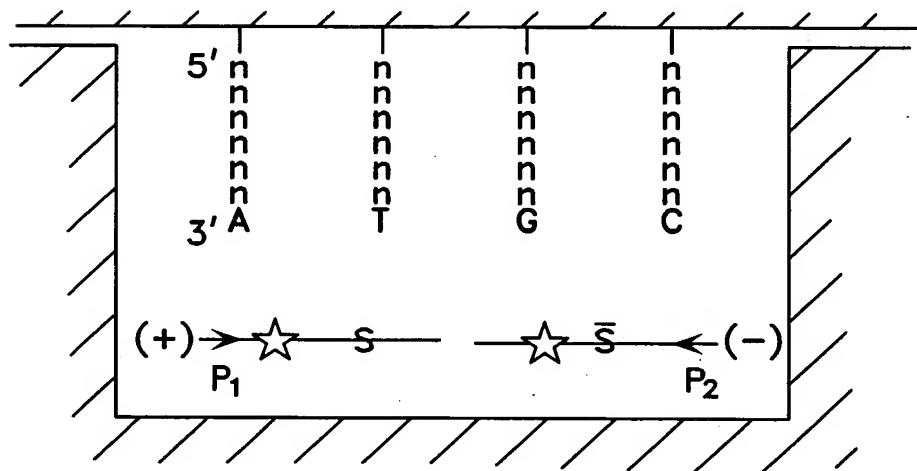




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Annealing of Labeled PCR Product back to SNP Specific Probes



A/G pair interrogates $\{+\}$ strand
T/C pair interrogates $\{-\}$ strand

Fig. 6B

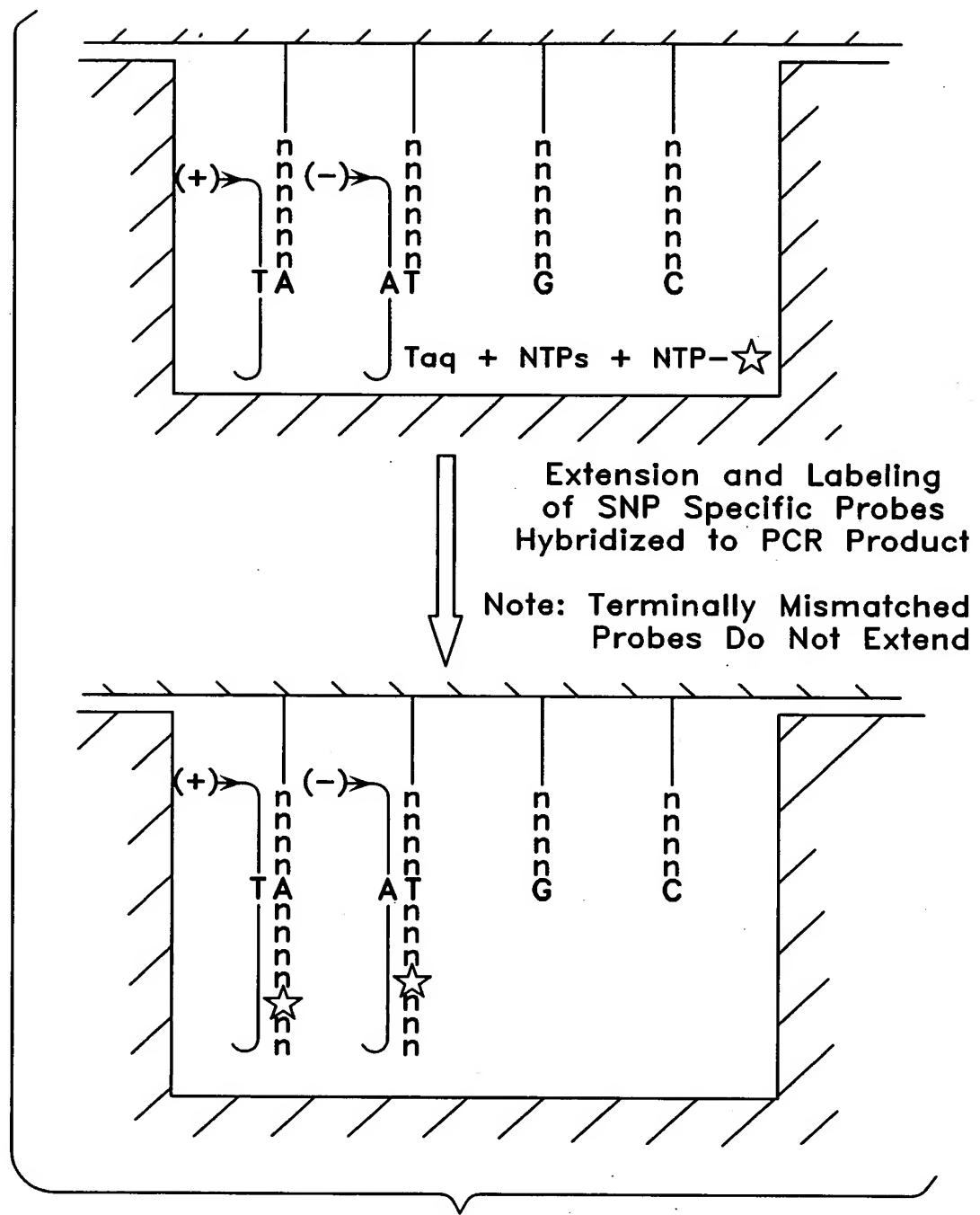


Fig. 6C

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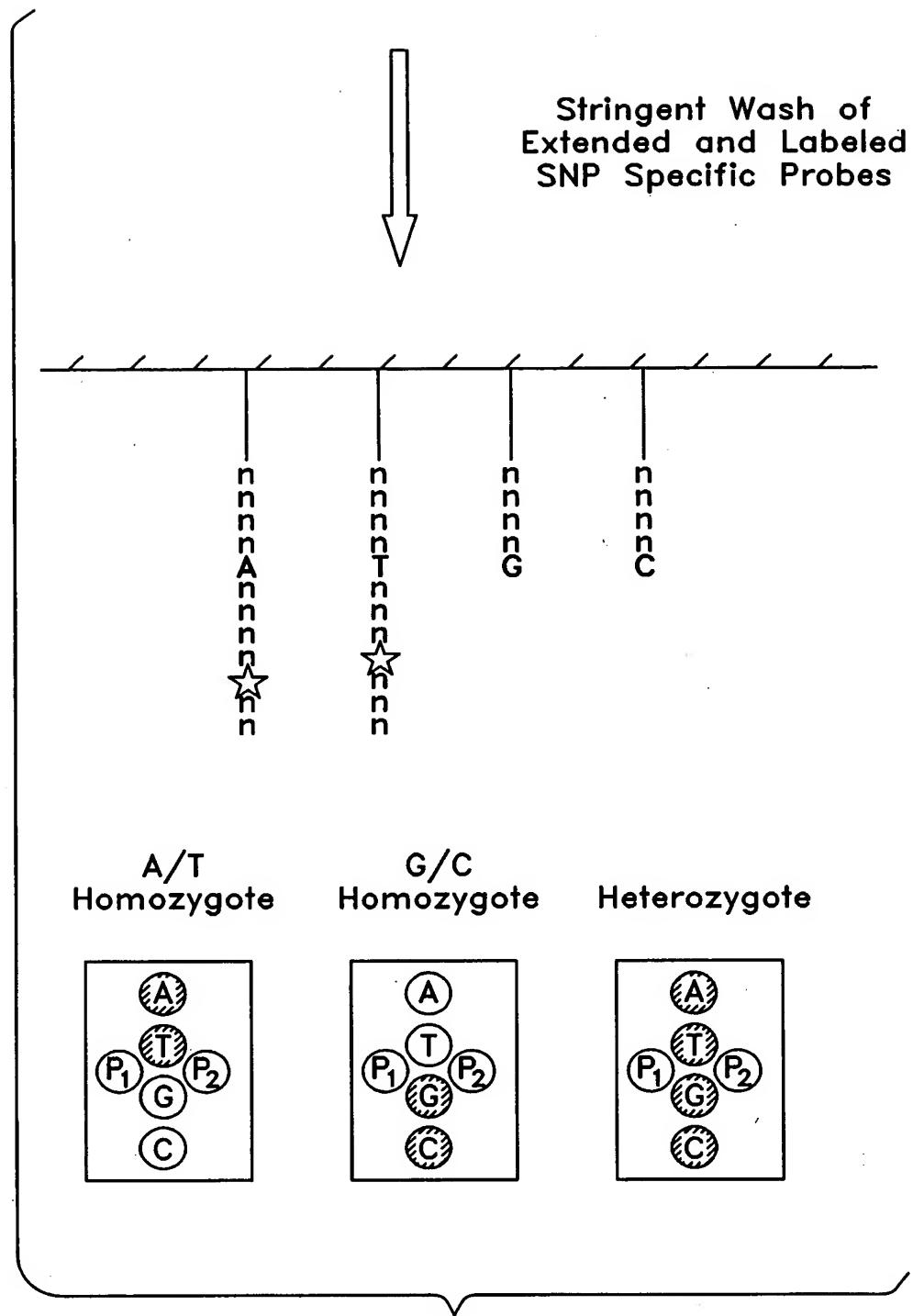


Fig. 6D

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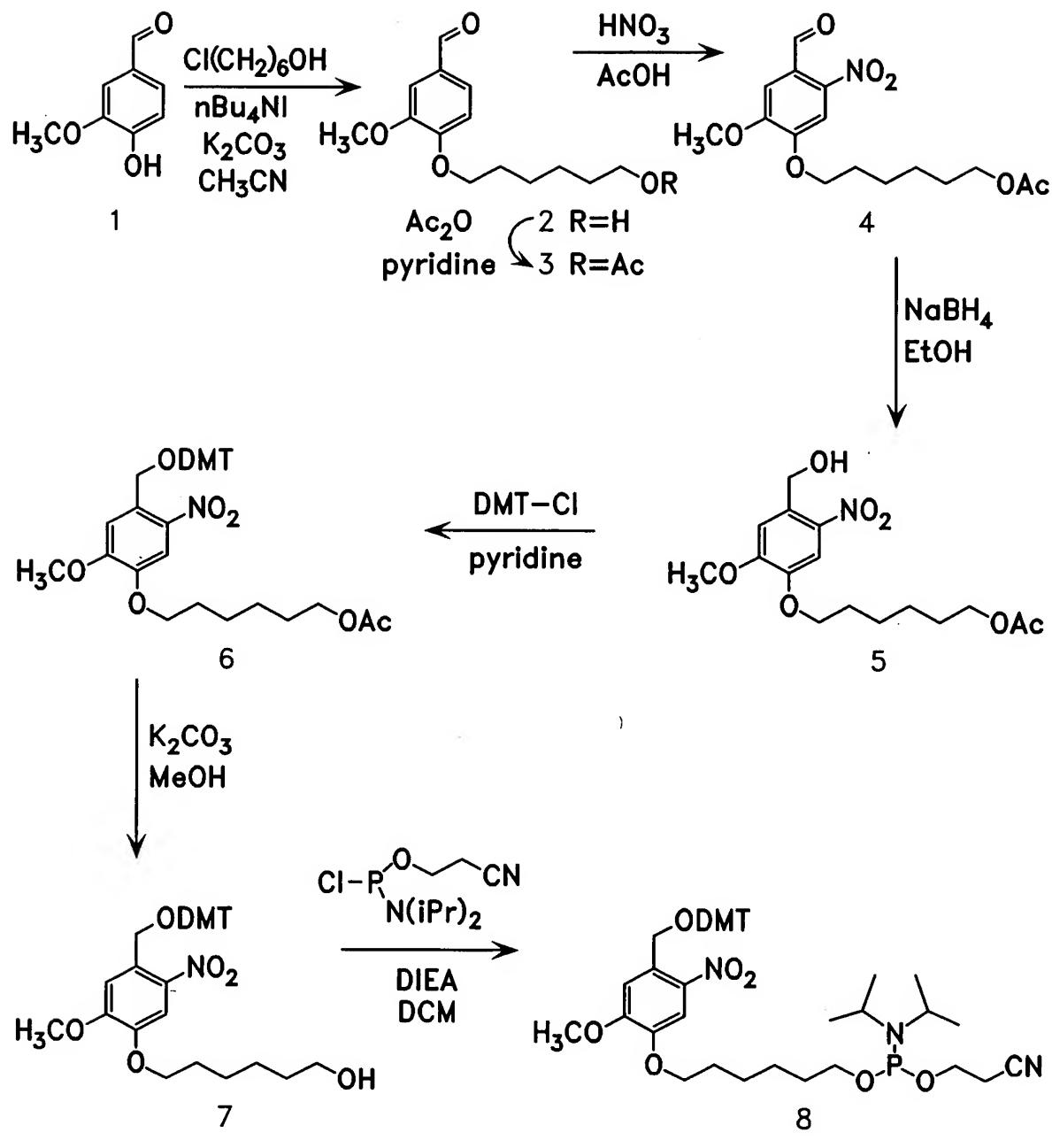


Fig. 7

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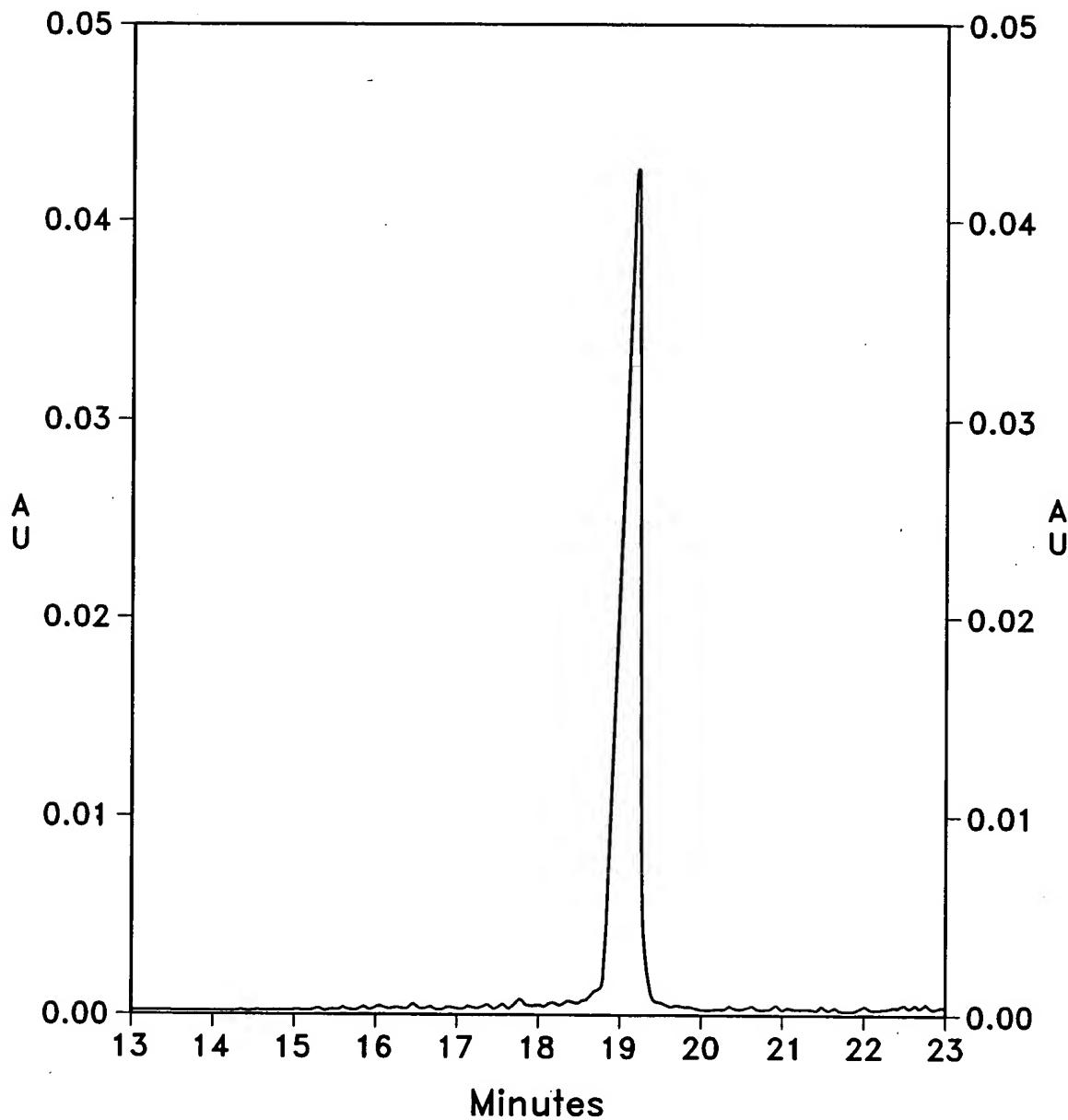


Fig. 8

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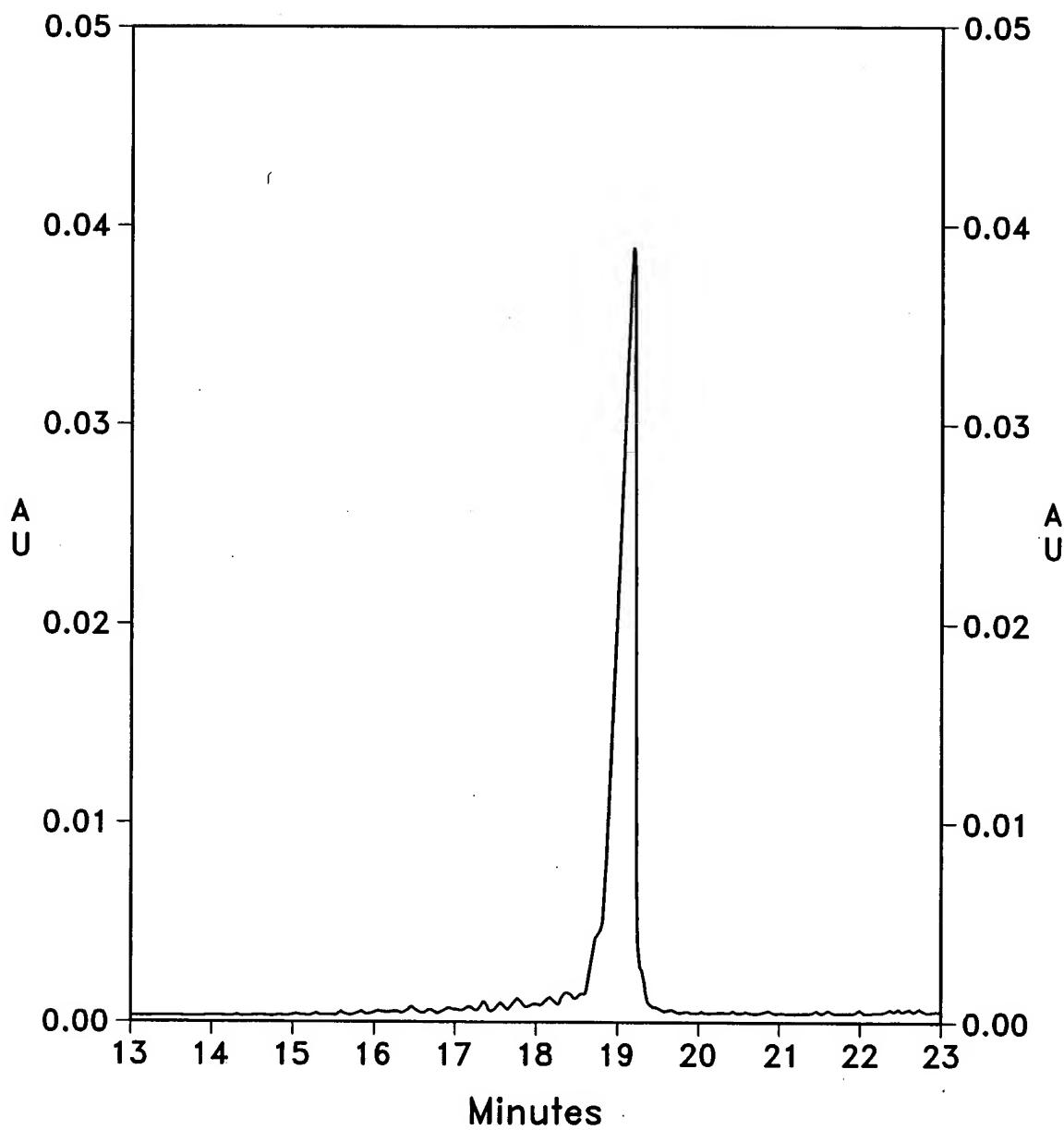


Fig. 9

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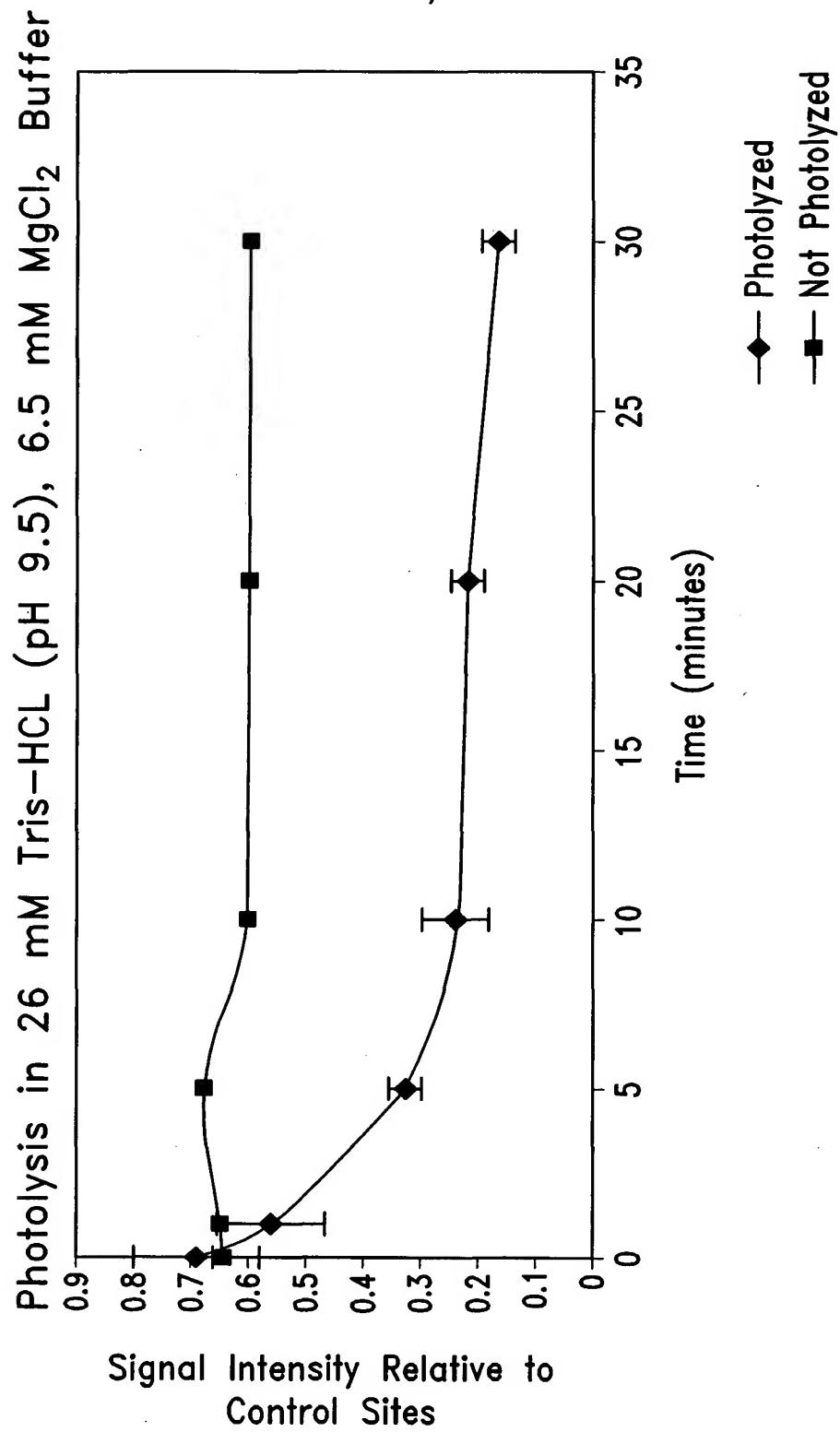


Fig. 10

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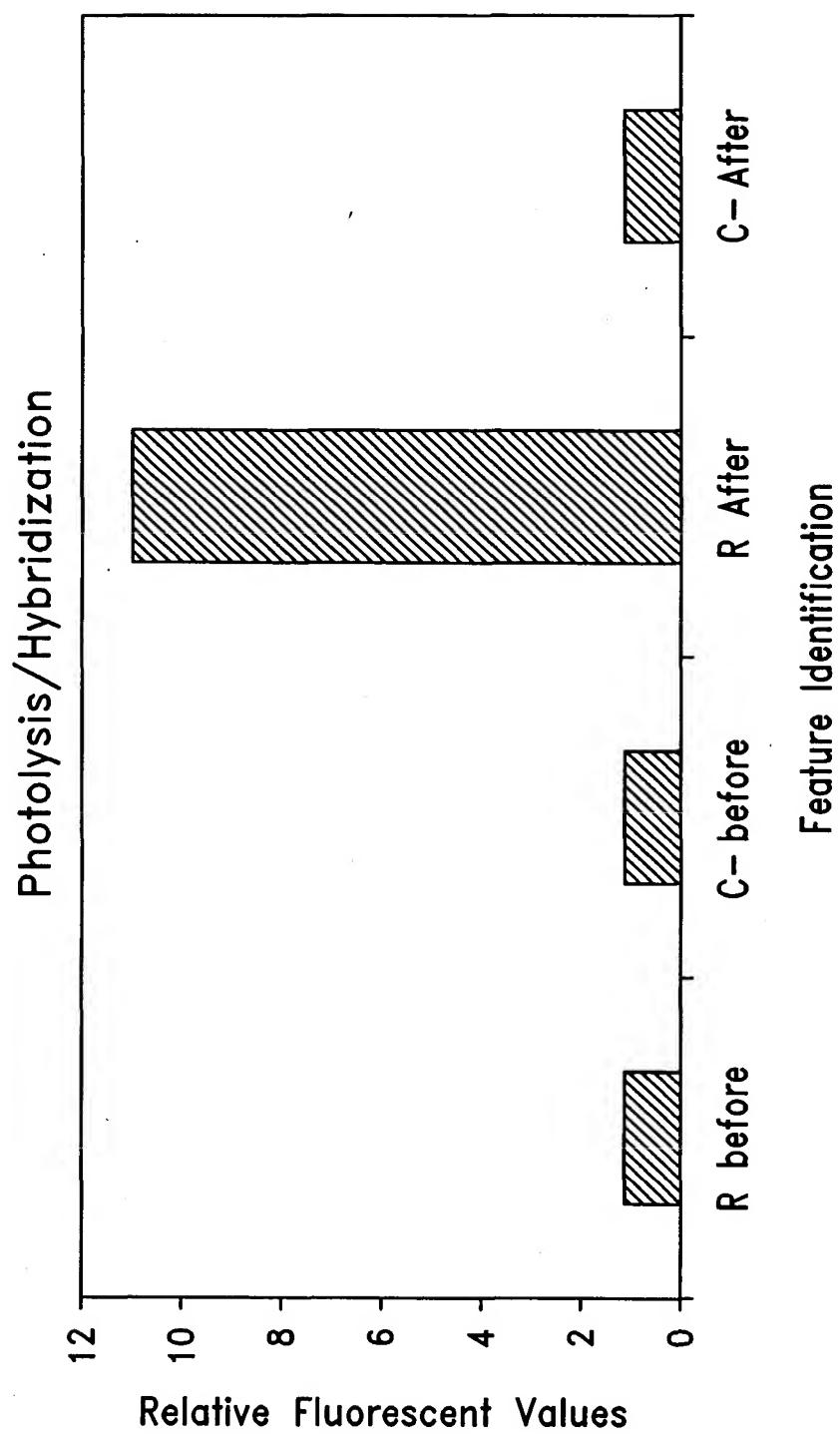


Fig. 11

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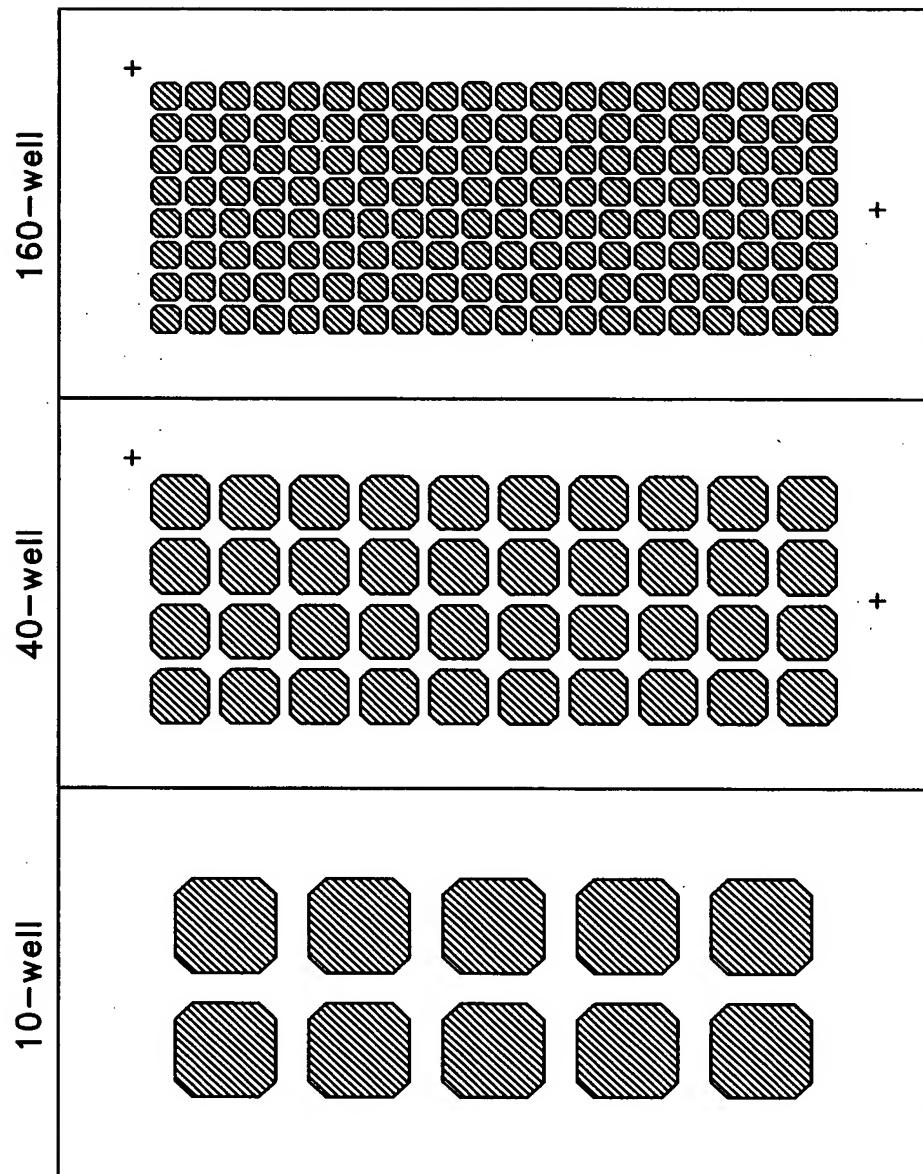


Fig. 12

R	F	R	F	R
F	PC1	F	PC2	F
R	C+	R	C-	R
F	PN1	F	PN2	F
R	F	R	F	R

R	F	R	F	R
F	PC1	F	PC2	F
R	C+	R	C-	R

<u>Probe</u>	<u>Description</u>	<u>ID</u>	<u>Name</u>	<u>3-5 Sequence</u>
F	Forward primer	FPC	F191RevCmp	ctcaaccggatctccgataaaa
R	Reverse primer	RPRC	R191RevCmp	cgggtcatgtttttcaactaacttg
PC1	Probe coding 1	A	191C_A	CTTTGGACCCACCCA
PC2	Probe coding 2	G	191C_G	CTTTGGGCCACC
PN1	Probe non-coding 1	T	191NC_T	TGGCTGGTCCAAGAA
PN2	Probe non-coding 2	C	191NC_C	TGGGTGGGCCAAAGAA
C+	Positive Control	+	F191Rev	TTTTATCGGAGATTGGTTGAG
C-	Negative Control	-	F481Rev	GGAGAGAGAAGACAGTCGTCTT

Fig. 13

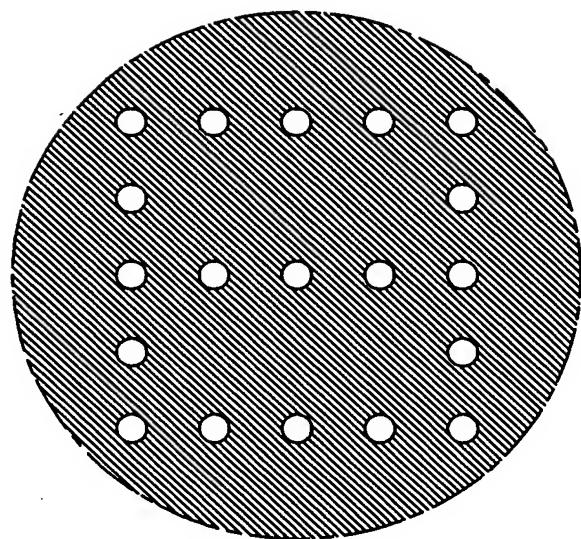


Fig. 14A

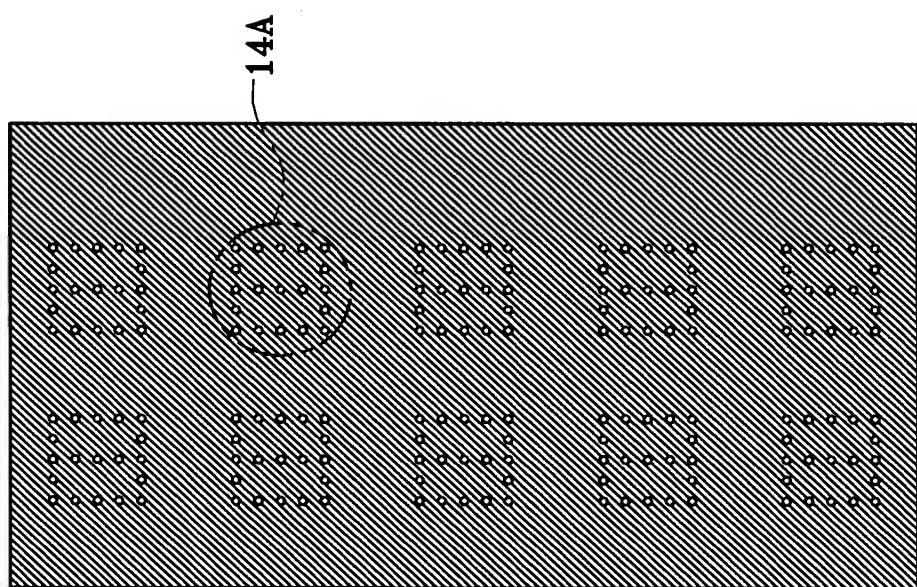


Fig. 14

Fig. 15A

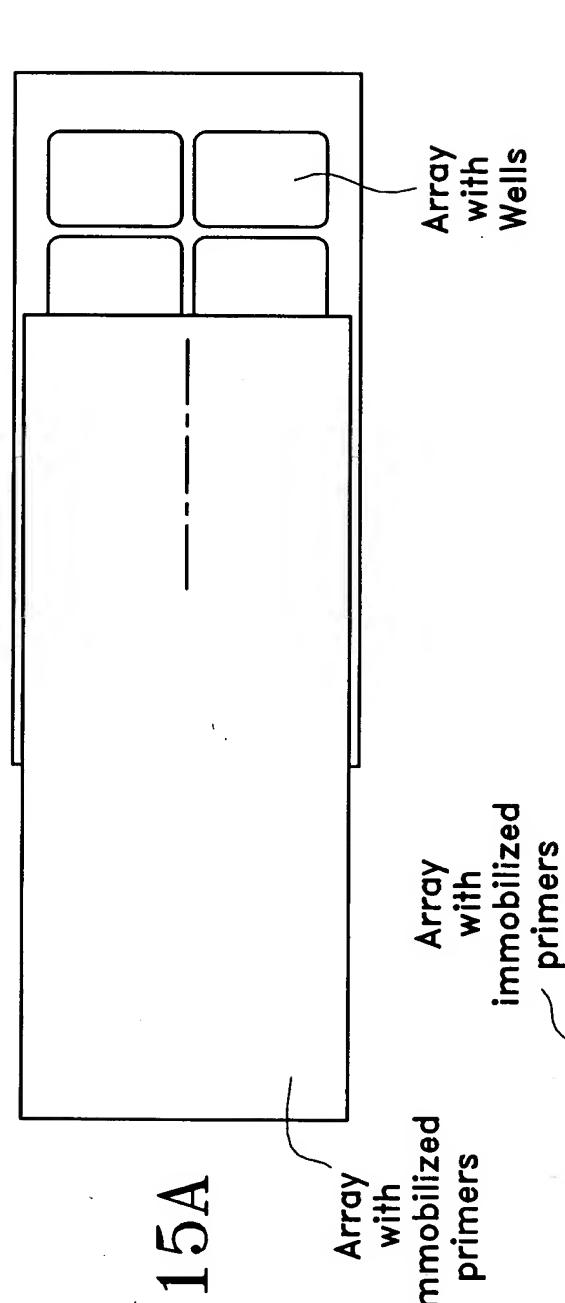
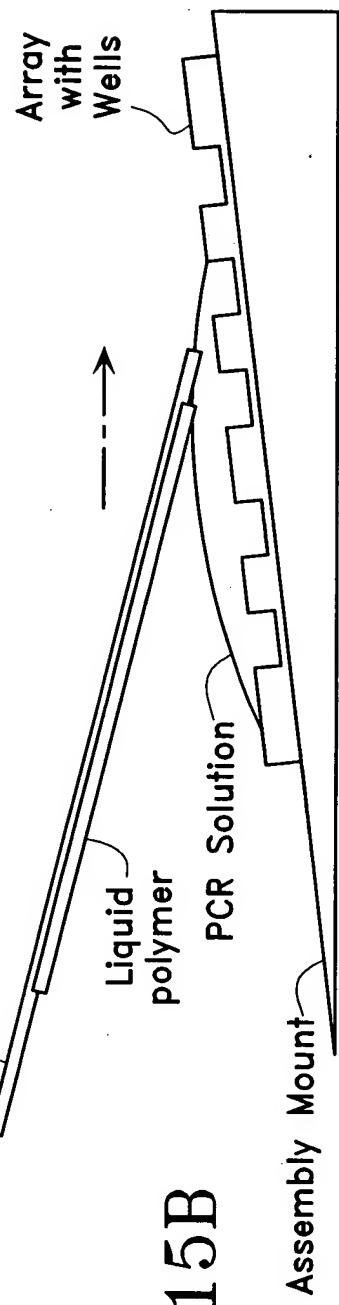


Fig. 15B



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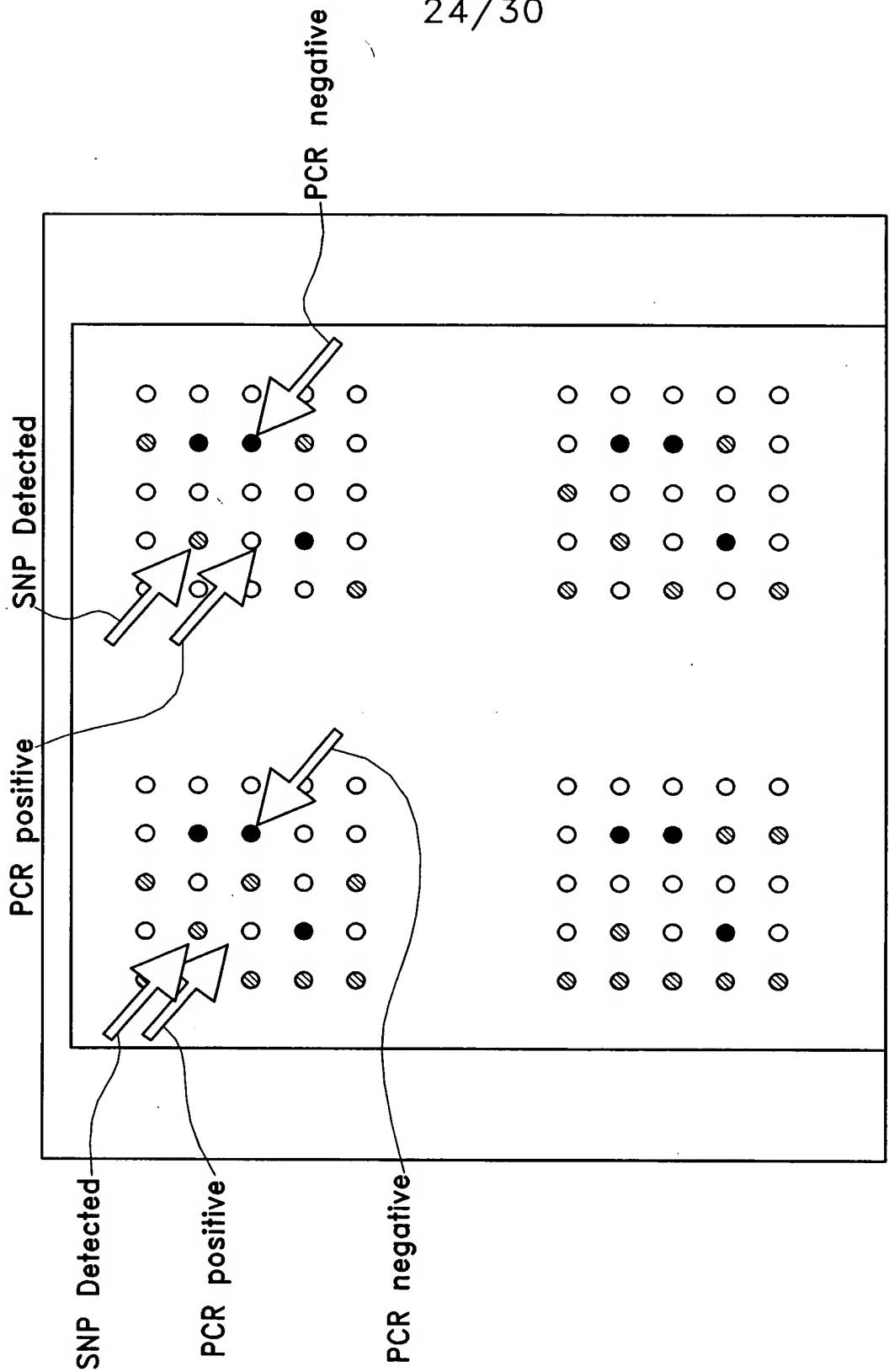


Fig. 16

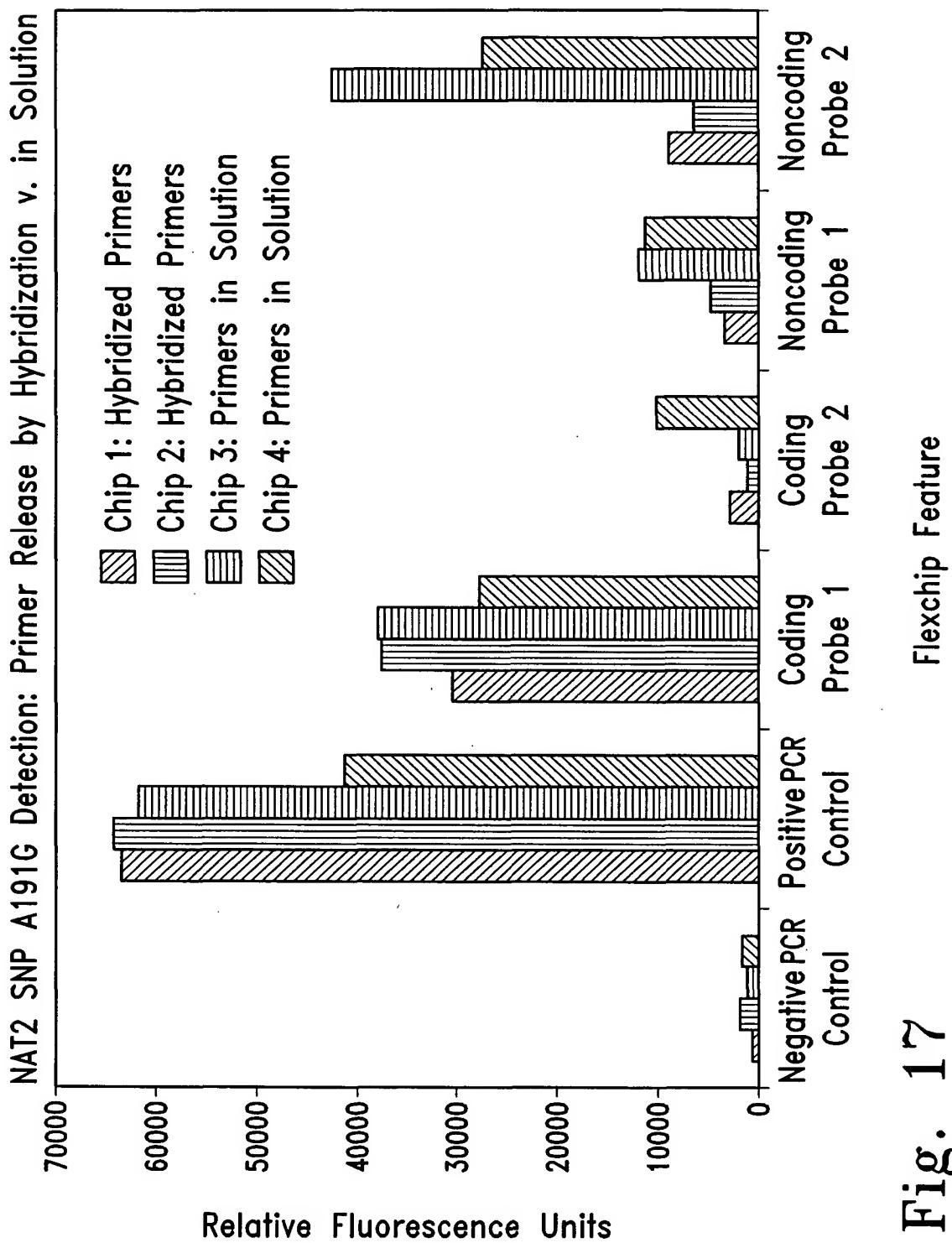


Fig. 18

Fig. 18A

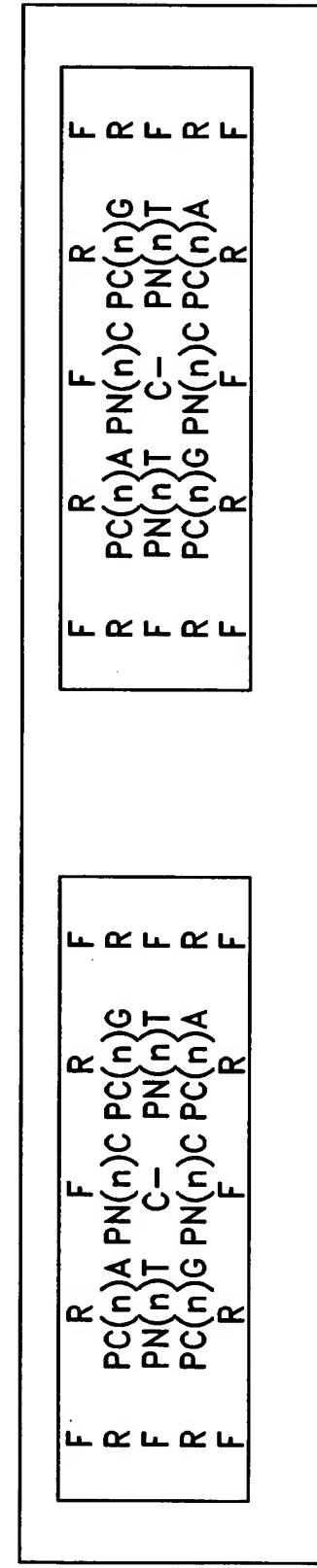
Fig. 18B



Fig. 18A

F	R	F	R	F
R	PC(n)A	PN(n)C	PC(n)G	R
F	PN(n)T	C-	PN(n)T	F
R	PC(n)G	PN(n)C	PC(n)A	R
F	R	F	R	F

F	R	F	R	F
R	PC(n)A	PN(n)C	PC(n)G	R
F	PN(n)T	C-	PN(n)T	F
R	PC(n)G	PN(n)C	PC(n)A	R
F	R	F	R	F



<u>Probe</u>	<u>Description</u>	<u>ID</u>	<u>Name</u>	<u>3-5 Sequence</u>
F	Forward primer	+	CompF	AAAATAGCCTAAGCCCCAACTC
R	Reverse primer	+	CompR	GTCAATCAACTTCTGTACTGGCC
PC(n)A	Probe coding (n) A	A		TCACATTGTAAAGAAACCA
PC(n)C	Probe coding (n) C	C		TCACATTGTAAAGAAACCC
PC(n)G	Probe coding (n) G	G		TCACATTGTAAAGAAACCG
PC(n)T	Probe coding (n) T	T		TCACATTGTAAAGAAACCT
PN(n)A	Probe non-coding (n) A	A		GAGACACCACCCACCCA
PN(n)C	Probe non-coding (n) C	C		GAGACACCACCCACCCC
PN(n)G	Probe non-coding (n) G	G		GAGACACCACCCACCCG
PN(n)T	Probe non-coding (n) T	T		GAGACACCACCCACCT
PC(n-1)A	Probe coding (n-1) A	A		TGATCACATTGTAAAGAAACA
PC(n-1)C	Probe coding (n-1) C	C		TGATCACATTGTAAAGAAACC
PC(n-1)G	Probe coding (n-1) G	G		TGATCACATTGTAAAGAAACG
PC(n-1)T	Probe coding (n-1) T	T		TGATCACATTGTAAAGAAACT
PN(n-1)A	Probe non-coding (n-1) A	A		GGAGACACCACCCACCA
PN(n-1)C	Probe non-coding (n-1) C	C		GGAGACACCACCCACCC
PN(n-1)G	Probe non-coding (n-1) G	G		GGAGACACCACCCACCG
PN(n-1)T	Probe non-coding (n-1) T	T		GGAGACACCACCCACCT
C-	negative control	-	(ACTG)	ACTGACTGACTGACTG

Fig. 18B

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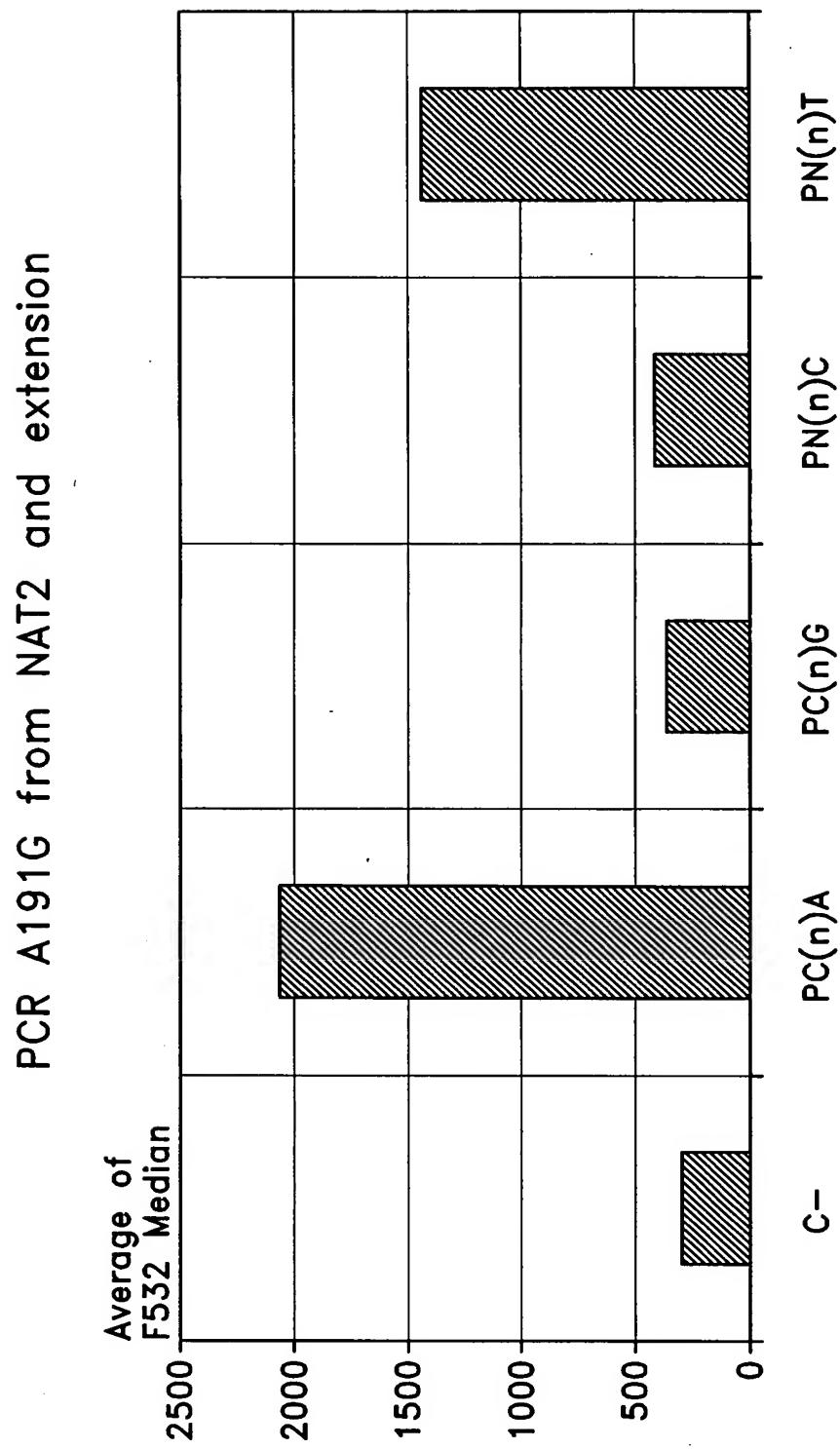


Fig. 19

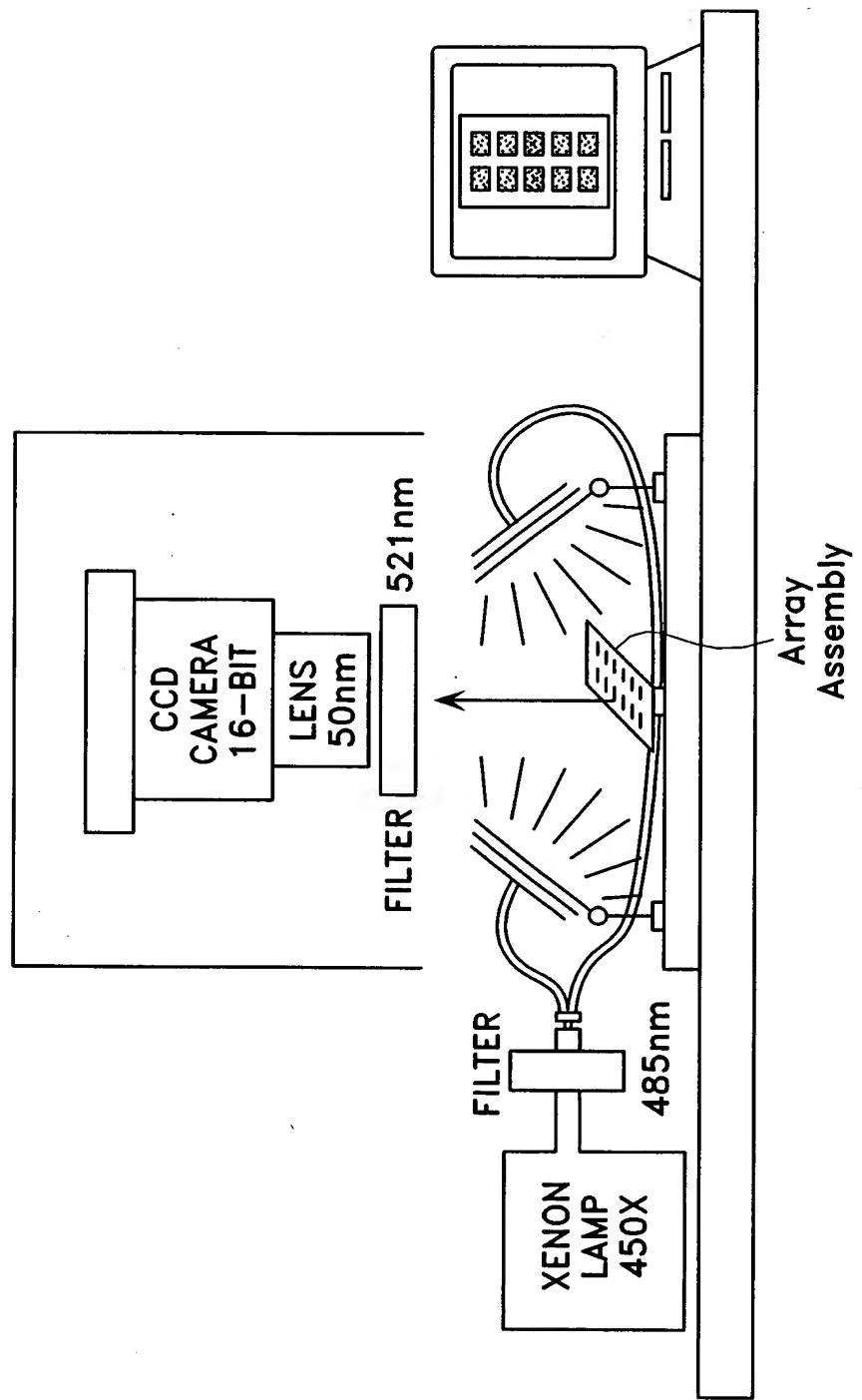


Fig. 20

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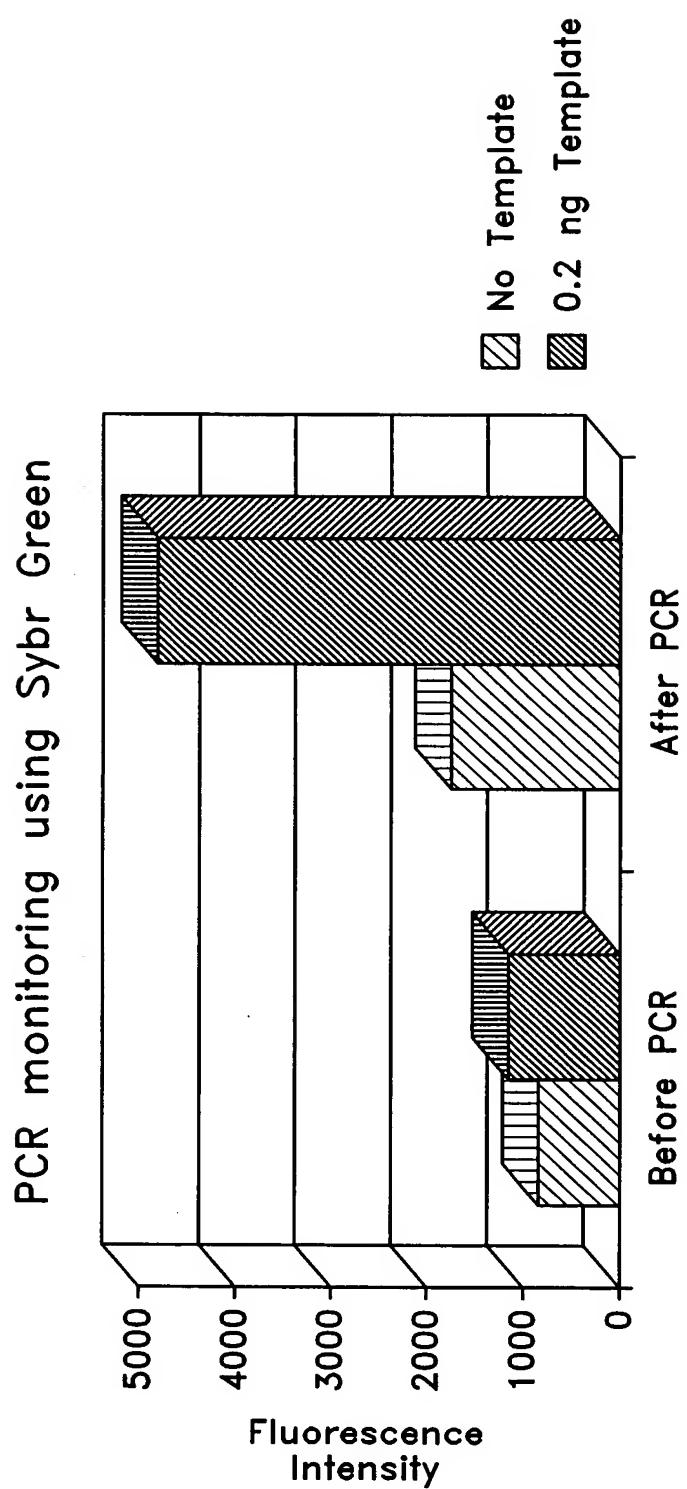


Fig. 21